REMARKS:

In the Final Office Action of November 10, 2010, all of the pending claims, namely, claims 1-4, 6, 9, 10, 13-17, 19-21, 23 and 25-28, were rejected under 35 U.S.C. 102(e) as anticipated by U.S. Patent 7,739,125 to Sorensen et al. ("Sorensen"). By the present amendment, the claims, including all of the independent claims 1, 15, 23, 25 and 27, have been amended to even more clearly define the invention so as to patentably distinguish over the teachings of Sorensen.

Applicant's invention according to claim 1 is a data arrangement for a dental-care environment, which comprises at least one dental unit (U) configured to control operation of at least one dental-care instrument (X), and a data system (S), wherein a data transmission communication has been arranged between the dental unit (U) and the data system (S). The arrangement comprises a means for identifying a predetermined event, the predetermined event being taking said at least one dental-care instrument (X) to use, and a means for transmitting information related to said event to the data system (S) as a response to identifying the predetermined event, and a means for storing said information in the data system (S) item-specifically.

Claim 1 has been amended in several respects. No new matter has been added. The dental-care related device is defined as comprising an instrument table and the predetermined event is further defined as "taking said at least one dental care instrument (X) to use from said instrument table." The means for identifying the predetermined event and the means for transmitting information to the data system are further defined as means for "automatically" identifying the predetermined event and for "automatically" transmitting the information to the data system. Support for this amendment is found in the penultimate paragraph of specification. The information related to the predetermined event is further defined as being constituted by "at least one operating parameter" of the dental-care instrument, i.e., a parameter of the instrument based on the <u>actual operation or usage</u> of the instrument which follows the taking of the dental-care instrument to use from the instrument table. The means for storing the information in the data system item-specifically is further defined by specifying that the item is at least one of "the said dental care instrument, a patient, a certain tooth of a patient, and/or a certain tooth surface of a patient." All of these amendments are supported throughout the specification.

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As explained in a previous response, applicant's invention provides a solution to the well-known problem of having to rely on a person to record pertinent information regarding a patient or treatment. Manual data entry is time-consuming and subject to human error and forgetfulness. This invention provides an advantage in that it does not rely on any person to record information and provides the means for storing information relating to individual treatments and patients more extensively and in greater detail. Applicant's invention makes it possible to establish which treatment a patient was given, how it was given and which equipment was used. Accordingly, dental offices or clinics can reliably show that no malpractice has occurred if needed, or easily access and possibly transmit the dental treatment history of a patient. This invention promotes quality assurance of dental care because the dental information stored may be of different stages of the actual dental treatment. The invention is advantageous both for the dentist, as he has at his disposal all the necessary information to ensure proper succession of treatment, and for patient safety.

The Examiner refers to three different sections of the Sorensen publication. It is respectfully noted here that applicant disagrees with many of the interpretations made by the Examiner in relation to features of the currently pending claims.

Concerning the Sorensen Abstract and Col. 1 line 4-14, for example, the Office Action asserts that means are taught there for receiving information related to taking a dental-care instrument to use. The fact of the matter is, however, that Sorensen's Abstract and Col. 1 line 4-14, while only discussing storing and displaying general treatment sequences for various dental conditions, are completely silent as to such a feature. Sorensen aims to help and guide the dentist to give the patient proper treatment with respect to the patient's dental condition, while the present invention focuses on recording HOW the treatment was actually performed. The dentist may follow a treatment plan according to Sorensen's teaching in general, but in Sorensen there is no teaching that the ACTUAL VALUES of various operating parameters relating to a treatment would be stored. While Sorensen may be considered teaching a treatment plan in general, which may even include information of an actual instrument that was to be used, there is no teaching concerning storing information constituting actual operating parameters e.g., the rotation speed of a drill when it was actually used, the time the drilling lasted, etc. For example, if an instrument would fail during treatment, Sorensen's system would record nothing concerning that, not at least unless someone would manually enter such information, while the

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present invention as continuously monitoring and storing the parameter values relating to operating the instrument would automatically store information relating to such failure during treatment.

Column 5 lines 6-22 of Sorensen, on the other hand, discusses nothing but basic operation of a modern microprocessor controller dental unit. There is no discussion whatsoever concerning storing specific operational parameter values relating to use of an instrument. (It should be understood, further, that "a parameter setting" is just that, a setting, while the present invention goes way beyond that in storing information on, for example, whether instruments were actually used, during the actual treatment of a patient as the preset parameter(s) would suggest or not.)

The rejections of the Final Office Action are mainly based on the disclosure of Sorensen at Col. 8 lines 3-67. To begin with, this section of Sorensen reference starts by discussing a situation when "no instrument is lifted from the instrument carrier." Thus any teaching relating to that status of the dental unit does not relate in any way to the currently claimed invention, which is completely concerned with what takes place AFTER an instrument is lifted. Sorensen actually discusses, at the beginning of Col. 8, how a foot controller may be used in view of screen image representations of Fig. 4, with obviously no relevance as regards the present invention.

Latter sections of Col. 8 include a teaching that the patient rest may be provided with a sensor sensing when a patient enters and leaves the patient chair. This disclosure bears no relevance to the monitoring and storing of true values of operating parameters of instruments during treatment.

Finally, Sorensen discloses that bar codes of instruments may be registered via a bar code reader so that information may be stored concerning which individual instruments have been taken in use. Again, however, this is nothing but general information that some particular instrument, and perhaps even information of a related presetting, may be stored, which is completely different from automatically monitoring and storing, during the actual treatment event, of operational parameters of the instrument, e.g., how fast a drill actually rotates, for how long, etc.

The most extensive data to be stored according to Sorensen is presented in Fig. 8 of the publication. It becomes instantly clear and obvious from there that e.g., no sensor and related

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recording means are taught which could monitor and subsequently store parameters indicative of the actual operation of the dental instrument e.g., the actual rotation speed of a drill during drilling. At most, Sorensen teaches a bar code reader for storing dta as to which individual instrument was connected to the dental unit, what was a related instrument setting, and when the patient entered and left the treatment chair, BUT THERE IS NO MEANS TAUGHT BY WHICH ONE COULD DETECT AND STORE THE ACTUAL (POSSIBLY CHANGING VALUE) OF ANY OPERATION PARAMETER OF AN INSTRUMENT DURING TREATMENT. Again, "setting" is not the same as monitoring what actually happens, i.e., the operation parameters, during use of an instrument. The core of the instant invention is that such data will be automatically stored, so there is no need to edit anything (and in case there is no means to monitor the parameter values, as there is none taught in Sorensen, one cannot even store such information manually afterwards since without means, one cannot tell what the values actually have been).

For the foregoing reasons, it is submitted that claim 1 as presently amended patentably defines over Sorensen and is allowable. Claims 2-4, 6, 9-10 and 13-14 depend from claim 1 and as such contain the various limitations thereof. Accordingly, for the same reasons advanced above regarding claim 1, among others, these claims are also deemed to be allowable.

Independent claim 15 defines a method for maintaining an electronic dental-care register for a dental-care environment in a data arrangement, the dental-care environment comprising at least one dental unit (U) configured to control operation of at least one dental-care instrument (X), and a data system (S), wherein a data transmission communication is formed between the dental unit (U) and the data system (S); a predetermined event is identified in the dental unit (U), the predetermined event being taking said at least one dental-care instrument (X) to use from an instrument table; information related to the identified event is sent from the dental unit (U) to the data system (S); said information is received in the data system (S); and said information is stored in the data system (S) item-specifically.

Like claim 1, claim 15 as amended specifies that the information sent from the dental unit to the data system includes "at least one value of at least one operating parameter of said at least one dental-care instrument (X)." The information is stored item specifically, "wherein the item is at least one of the dental care instrument, a patient, a certain tooth of a patient and/or a certain tooth surface of a patient." As discussed above in connection with claim 1, Sorensen contains

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neither a teaching nor even a suggestion of these features so that for this reason, claim 15 patentably defines over the teachings of Sorensen. Claims 16-17 and 19-21 depend from claim 15 and should be allowable for the same reason, among others.

Independent claim 23 defines a dental-care-related device for performing dental-care events in a dental-care environment, wherein it comprises means for forming a data transmission communication with a data system (S) for the dental-care environment; means for identifying a predetermined event; and means for transmitting information related to the identified event to the data system (S), wherein the dental-care-related device includes a dental unit (U) configured to control operation of at least one dental-care instrument (X) wherein the predetermined event is taking said at least one dental-care instrument (X) to use, and wherein the dental-care related device further comprises means for storing information in the data system (S) item-specifically.

Like claim 1, claim 23 as amended specifies that the means for identifying the predetermined event and the means for transmitting information to the data system constitute means for "automatically" identifying and transmitting, while the information transmitted to the data system includes "at least one value of at least one operating parameter of said dental unit." As discussed above in connection with claim 1, Sorensen is devoid of any such disclosure so that for this reason, among others, claim 23 should now stand allowable.

Independent claim 25 defines a software product for a data arrangement for dental-care environment, the dental-care environment comprising at least one device (U, T) related to dental treatment and a data system (S), which software product comprises a program stored on program storage means and being readable by a computer, wherein it comprises a first routine by which a data transmission communication between the dental-care-related device (U, T) and the data system (S) is formed; a second routine by which a predetermined event is identified in the dental-care-related device (U, T); and a third routine by which information related to the identified event is transmitted from the dental-care-related device (U, T) to the data system (S), wherein at least one of the devices (U, T) related to dental treatment is a dental unit (U) configured to control operation of at least one dental-care instrument (X), and the predetermined event is taking said at least one dental-care instrument (X) to use.

Again, in the same manner as claim 1, claim 25 as amended defines the means for identifying the predetermined event and the means for transmitting information to the data system as means for "automatically" identifying and transmitting while the information that is
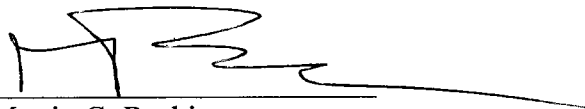
transmitted is defined as including "at least one value of at least one operating parameter of said dental unit." Sorensen is manifestly devoid of any such teaching. For this reason, claim 25, and claim 26 which depends from claim 25, should now stand allowable.

Independent claim 27 defines a software product in a data arrangement for dental-care environment, the dental-care environment comprising at least one device (U, T) related to dental treatment and a data system (S), which software product comprises a program stored on program storage means and being readable by a computer, wherein it comprises a first routine by which information related to a predetermined event is received in the data system from the dental-care-related device (U, T); and a second routine by which said information is stored in the data system (S) so that it may be linked to the object of the event, wherein at least one of the devices (U, T) related to dental treatment is a dental unit (U) configured to control operation of at least one dental-care instrument (X), and the predetermined event is taking said at least one dental-care instrument (X) to use.

Similar to claim 1, claim 27 as amended specifies that the information is "automatically" received in the data system and that the information includes at least one value of at least one operating parameter of the dental unit. These features are neither taught nor suggested by Sorensen and for this reason claim 27, and claim 28 which depends from claim 27, should now stand allowable.

In view of the amendments made herein and the remarks above, it is respectfully submitted that claims 1-4, 6, 9, 10, 13-17, 19-21, 23 and 25-28 as amended herein are neither taught nor suggested by Sorensen. Early passage to issue is respectfully requested.

Respectfully submitted,

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